IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the Application

Inventor	:	**Cornelius A.M. Jaspers**
Application No.	:	**09/373,459**
Filed	:	**August 11, 1999**
For	:	**COLOR SIGNAL MATRIX ADJUSTMENT**

APPEAL BRIEF

On Appeal from Group Art Unit 2615

Date: June 22, 2005

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Shannon Lester
(Name)

(Signature and Date) 6/22/05

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I. REAL PARTY IN INTEREST

The real party in interest is the assignee of the present application, U.S. Philips Corporation, and not the party named in the above caption.

II. RELATED APPEALS AND INTERFERENCES

With regard to identifying by number and filing date all other appeals or interferences known to Appellant which will directly effect or be directly affected by or have a bearing on the Board's decision in this appeal, Appellant is not aware of any such appeals or interferences.

III. STATUS OF CLAIMS

Claims 1, 2, 5-7 and 10 remain pending. Claims 2, 7 and 10 have been indicated as containing allowable subject matter. The remaining claims stand finally rejected, and form the subject matter of the present appeal.

IV. STATUS OF AMENDMENTS

All amendments have been entered. No Amendment After Final has been submitted.

V. SUMMARY of the CLAIMED SUBJECT MATTER

The present invention provides for convenient color adjustment and white point adjustment of a color image sensor, manual adjustment of which is time consuming and unsatisfactory. In accordance with the method of claim 1, an n x n color signal matrix

used to multiply a column vector input color value, where n is a number of primary colors in a chosen color space, is adjusted by adjusting a single first color signal matrix related value to obtain a color signal matrix parameter adjustment; and automatically adapting at least two color signal matrix parameters other than said single first color signal matrix related value in dependence upon said color signal matrix parameter adjustment. In this manner, color adjustment may be achieved largely independently of white point adjustment. That is, the white reproduction is maintained to large degree. See the Figure and page 3, lines 10-20 of the specification. Claim 5 relates to a corresponding color matrix adjusting device, and claim 6 relates to a camera including such a color matrix adjusting device.

VI. GROUNDS of REJECTION to be REVIEWED ON APPEAL

The issues in the present matter are whether:

1. claims 1 and 5 are anticipated under 35 USC §102(b) by Bestenreiner; and
2. claims 6 is obvious under 35 USC §103(a) in view of Bestenreiner.

VII. ARGUMENT

I. Rejection of Claims 1 and 5 Under 35 USC §102(b) in view of Bestenreiner

Bestenreiner does not teach or suggest adjusting adjusting a *single* first color signal matrix related value to obtain a color signal matrix adjustment; and

automatically adapting at least two color signal matrix parameters other than said single first color signal matrix, as claimed. Hence, Bestenreiner cannot anticipated claim 1 or claim 5.

Referring to the cover figure of Bestenreiner, the values R' and B' are *both* obtained in response to a user adjustment device 7, which performs ganged control of the adjustable resistors 9 and 10. The *single* value G' is obtained in response to the values R' and B' and a luminance value Y. Hence it may be seen that Bestenreiner operates in a manner quite opposite of the present invention, in which a single value is adjusted, leading to the automatic adjustment of multiple other values.

II. Rejection of claim 6 Under 35 USC §103(a) in view Bestenreiner

Claim 6 is believed to be allowable for similar reasons as claim 1 and claim 5. The Rejection does not identify any teaching that would lead to modification of Bestenreiner in such a way as to arrive at the present invention, in which a single value is adjusted, leading to the automatic adjustment of multiple other values.

VIII. CONCLUSION

In view of the above analysis, it is respectfully submitted that the referenced teachings, whether taken individually or in combination, fail to anticipate or render obvious the subject matter of any of the present claims. Therefore, reversal of all outstanding grounds of rejection is respectfully solicited.

Respectfully submitted,

Date: June 22, 2005

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IX. APPENDIX: THE CLAIMS ON APPEAL

1. A method of adjusting an n x n color signal matrix used to multiply a column vector input color value, where n is a number of primary colors in a chosen color space, the method comprising:

adjusting a single first color signal matrix related value to obtain a color signal matrix adjustment; and

automatically adapting at least two color signal matrix parameters other than said single first color signal matrix related value in dependence upon said color signal matrix parameter adjustment.

2. The method of claim 1, wherein:

said single first color signal matrix related value is a first color signal matrix parameter corresponding to a first color;

said color signal matrix adjustment is an increase of said first color signal matrix parameter by an amount δ to change a reproduction of said first color; and

said automatically adapting step includes multiplying all color matrix parameters corresponding to colors other than said first color by a factor $(\Sigma X + \delta) / \Sigma X$, in which ΣX is a sum of color signal matrix parameters corresponding to said first color, to substantially maintain a white reproduction.

5. A color signal matrix adjustment device for adjusting an n x n color signal matrix used to multiply a column vector input color value where n is a number of primary colors in a chosen color space, comprising:

means for adjusting a single first color signal matrix related value to obtain a color signal matrix adjustment; and

means for automatically adapting at least two color signal matrix parameters other than said single first color signal matrix related value in dependence upon said color signal matrix parameter adjustment.

6. A color camera, comprising a color sensor for producing input color signals and a color signal matrix adjustment device for adjusting an n x n color signal matrix used to multiply a column vector input color value where n is a number of primary colors in a chosen color space, used for adjusting said input color signals to obtain output color signals, wherein the color signal matrix adjustment device includes:

means for adjusting a single first color signal matrix related value to obtain a color signal matrix adjustment; and

means for automatically adjusting at least two color signal matrix parameters other than said single first color signal matrix related value in dependence upon said color signal matrix parameter adjustment.

7. The camera of claim 6, wherein:

said single first color signal matrix related value is a first color signal matrix parameter corresponding to a first color;

said color signal matrix adjustment is an increase of said first color signal matrix parameter by an amount δ to change a reproduction of said first color; and

said automatically adapting step includes multiplying all color matrix parameters corresponding to colors other than said first color by a factor $(\Sigma X + \delta) / \Sigma X$ in which

ΣX is a sum of color signal matrix parameters corresponding to said first color, to substantially maintain a white reproduction.

10. The color signal matrix adjustment device of claim 5, wherein:

said single first color signal matrix related value is a first color signal matrix parameter corresponding to a first color;

said color signal matrix adjustment is an increase of said first color signal matrix parameter by an amount to change a reproduction of said first color; and

said automatically adapting step includes multiplying all color signal matrix parameters corresponding to colors other than said first color by a factor $(\Sigma X + \delta) / \Sigma X$, in which ΣX is a sum of color signal matrix parameters corresponding to said first color, to substantially maintain a white reproduction.